

## STRATEGIC PARTNERSHIPS ...CREATIVE SOLUTIONS

### CONCRETE MATTRESS INSTALLATION

GREATER GABBARD / THANET FOR SUBOCEAN IN DEC 2009 – SEPT 2010

In late 2009 REDS was contracted by SubOcean to install concrete mattresses to provide cable protection for the export cables at both Greater Gabbard and Thanet. Approximately 65 mats were installed over the winter period of 2009 / 2010 in the 1st phase of a cable installation package.

In order to carryout the works efficiently, REDS chartered the 53m "OSV Oil Express" which is able to accommodate up to 12 mats at any one time, as well as all the associated diving equipment including dive control, deck decompression chamber, LARS (Launch and Recovery System), and 15 divers plus crew in order to work on a 24 hour basis.

The mattresses were installed with diver assistance to a high degree of accuracy in difficult conditions (visibility, water depth, current, weather and tidal conditions), utilising the Fugro USBL Scout System.

This sonar system allowed the Fugro personnel and REDS supervisors to monitor the mattress locations from the vessel and instruct the divers accordingly in order to orientate the mats to meet the client specification.

During the summer of 2010 REDS revisited both Greater Gabbard and Thanet OWF's to complete further post lay mattress installations and to carryout remedial cable support works.

Operations conducted include:

- Install post and pre-lay mattresses
- Cable end pull in support
- Inspection of installed cables
- Messenger wire installation
- Subsea remedial works
- Damaged cable joint removal
- Deburial / Reburial of Cable
- Project Management

